

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An MPEG video decoding method, comprising:

determining whether to perform motion compensation on motion-vector-decoded data or not depending on a value of a decoded motion vector;

determining whether to perform inverse discrete cosine transformation (IDCT) on motion-compensated data or not depending on a plurality of values of decoded DCT coefficients;
and

generating a decoded image based on ~~the~~ results of the ~~two~~ ~~determination steps~~ determining whether to perform the motion compensation and the determining whether to perform the IDCT.
2. (currently amended): The MPEG video decoding method of claim 1, wherein the determining whether to perform motion compensation or not comprises:

determining whether or not the value of the decoded motion vector is 0; and

determining not to perform the motion compensation if the value of the decoded motion vector is 0 and determining to perform the motion compensation if the value of the decoded motion vector is not 0.

3. (currently amended): The MPEG video decoding method of claim 1, wherein the determining whether to perform the inverse DCT or not comprises:

determining whether or not ~~the value each of the plurality of the values of each the~~ decoded DCT ~~efficient~~ coefficients is 0; and

determining not to perform the inverse DCT if ~~the value each of the plurality of the~~ values of each the decoded DCT ~~efficient~~ coefficients is 0 and determining to perform the inverse DCT if ~~the value any of the plurality of the values of any the~~ decoded DCT ~~efficient~~ coefficients is not 0.

4. (canceled).

5. (withdrawn): An MPEG video decoding method, comprising:

generating a predicted image macroblock depending on a value of a decoded motion vector;

writing the predicted image macroblock in a macroblock buffer;

generating a differential image macroblock depending on a plurality of values of decoded DCT coefficients;

generating a decoded image macroblock by adding the differential image macroblock to the predicted image macroblock written in the macroblock buffer; and

writing the decoded image macroblock in a frame buffer.

6. (withdrawn): The MPEG video decoding method of claim 5, wherein generating the predicted image macroblock comprises:

determining whether or not the decoded motion vector is 0;

determining a previous image macroblock as the predicted image macroblock if the decoded motion vector is 0; and

generating the predicted image macroblock by performing motion compensation on the previous image macroblock if the decoded motion vector is not 0.

7. (withdrawn): The MPEG video decoding method of claim 5, wherein generating the differential image macroblock comprises:

determining whether or not the value of each decoded DCT coefficient is 0;

determining not to generate the differential image macroblock if the value of each decoded DCT coefficient is 0; and

generating the differential image macroblock by performing inverse DCT if the value of any decoded DCT coefficient is not 0,

wherein if the differential image macroblock is not generated, adding the differential image to the predicted image is skipped.

8. (original): An MPEG video decoder, comprising:

a motion vector determiner determining whether to perform motion compensation or not depending on a value of a decoded motion vector; and

a DCT coefficient determiner determining whether to perform inverse discrete cosine transform (IDCT) or not depending on a plurality of values of decoded DCT coefficients,

wherein an MPEG video stream is decoded based on determinations of the motion vector determiner and the DCT coefficient determiner.

9. (currently amended): The MPEG video decoder of claim 8, wherein the motion vector determiner determines not to perform the motion compensation if the value of the decoded motion vector is 0, and determines to perform the motion compensation if the value of the decoded motion vector is not 0.

10. (currently amended): The MPEG video decoder of claim 8, wherein the DCT coefficient determiner determines not to perform the inverse DCT if ~~the value each of the~~ plurality of the values of each the decoded DCT ~~coefficient-coefficients~~ is 0, and determines to perform the inverse DCT if ~~the value any of the plurality of the values of any the~~ decoded DCT ~~coefficient~~ is not 0.

11. (canceled).

12. (withdrawn): An MPEG video decoder, comprising:

a predicted image calculation unit generating a predicted image macroblock depending on a value of a decoded motion vector;

a differential image calculation unit generating a differential image macroblock depending on a plurality of values of decoded DCT coefficients;

a macroblock buffer where the predicted image macroblock and the differential image macroblock are added; and

a frame buffer where a decoded image macroblock is written, after the decoded image macroblock is generated by adding the predicted image macroblock and the differential image macroblock in the macroblock buffer.

13. (withdrawn): The MPEG video decoder of claim 12, wherein the predicted image calculation unit comprises:

a motion vector determiner determining whether or not the decoded motion vector is 0;
and

a motion compensator performing motion compensation depending on a result of the determination.

14. (withdrawn): The MPEG video decoder of claim 12, wherein the differential image calculation unit comprises:

a DCT coefficient determiner determining whether or not the value of each decoded DCT coefficient is 0; and

an inverse discrete cosine transformer performing inverse DCT depending on a the result of the determination.

15. (new): A video decoding method, comprising:

determining whether to perform motion compensation on motion-vector-decoded data or not depending on a value of a decoded motion vector; and

generating a decoded image based on a result of the determining whether to perform the motion compensation.

16. (new): A video decoder, comprising:

a motion vector determiner determining whether to perform motion compensation or not depending on a value of a decoded motion vector;

wherein an MPEG video stream is decoded based on a determination of the motion vector determiner.